Pierce Mill Bridge
Rock Creek Park
Washington
District of Columbia

HAER No. DC-28

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
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HISTORIC AMERICAN ENGINEERING RECORD
PIERCE MILL BRIDGE
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Location: Pierce Mill Bridge spans Rock Creek and connects Tilden Street and Park Road. The structure is just west of Beach Drive in Rock Creek Park, Washington, D.C.

Date of Construction: 1872; 1895; 1921.

Designer and Builder: Designed by Schiffler Bridge Company, Pittsburgh, Pennsylvania, 1872. Construction supervised by Conway Blunt, D.C. Bridge Engineer, 1895. Modified by D.C. Assistant Engineer of Bridges, 1921.

Present Owner: Department of Public Works, District of Columbia.

Present Use: Vehicular bridge.

Significance: One of the oldest extant crossings of Rock Creek, this bridge stands near historic Isaac Pierce Mill (HABS No. DC-22). Originally it served as a trade route to the mill. Now it is a busy artery that has deteriorated from heavy use, but retains its historic character.

Project Information: The documentation of Rock Creek and Potomac Parkway was undertaken as a two-year pilot project to help establish standards and guidelines for recording the structures and landscape features of park roads and parkways. This project was a joint effort of the Historic American Buildings Survey and the Historic American Engineering Record (HABS/HAER), a combined division of the National Park Service, Robert Kapsch, chief. The project was sponsored by the Park Roads Program of the National Park Service, John Gingles, deputy chief, Safety Services Division. The project supervisor was Sara Amy Leach, HABS historian.

The Washington-based summer 1992 documentation team was headed by landscape architect Robert Harvey (Iowa State University-Department of Landscape Architecture) who served as field supervisor; the landscape architects were Deborah Warshaw (University of Virginia) and Dorota Pape-Siliwonczuk (US/ICOMOS-Poland, Board of Historical Palaces and Gardens Restoration); the architects were Evan Miller (University of Colorado-Boulder), Steven Nose (University of Maryland), and Tony Arcaro (Catholic University). The historians were Tim Davis (University of Texas) and Amy Ross (University of Virginia). Jack E. Boucher made the large-format photographs; Air Survey Corporation of Sterling, Virginia, produced the aerial photography and digital mapping from which the site-plan delineations were made.

History of the Crossing

A bridge spanned the creek at Pierce Mill as early as the 1860s, prior to which there bad been a ford here.[1] The existing mill operated commercially from the 1820s to 1897.[2] In 1872, public money was spent to build a new bridge, known as Shoemaker's Bridge after Pierce Shoemaker who owned the property. It was atypical that the bridge was public funded, because the crossing primarily served the adjacent mill. Downstream, several bridges were erected by commercial interests to serve their purposes. For example, the 1891 Calvert Street was built by a railway company to carry its streetcar line to the northwestern suburbs.

The connection made by Pierce Mill Bridge soon became an integral part of the city's street system. After the federal government purchased Rock Creek Park in 1891, the District of Columbia retained jurisdiction over this bridge because of its importance. Over time, the traffic it carried became increasingly heavy.

Improvements

In 1895, the District Commissioners authorized improvements to the Pierce Mill Bridge. This refurbishment included the installation of steel girders--supporting a new wood deck and railings. This span replaced the 1872 bridge's all-wood superstructure, but retained its piers and abutments. Two parallel steel girders were placed on the old piers, 2' from their outer edge. Atop the steel girders, steel I-beams carried the wood deck. The cost of rebuilding the bridge was $4,008. Schiffler Bridge Company of Pittsburgh designed and fabricated the new superstructure. The commissioners had the Schiffler-designed bridge erected and painted, and the wood deck and railing added. Conway Blunt, District bridge engineer, supervised the day laborers as they completed this work.[3]

The approach from Tilden Street was raised on an earth embankment because the new superstructure included a deck 6' higher than the 1872 bridge. A plank road connected Park Road to the east end of the bridge.

In 1912, irregularly coursed masonry wing walls replaced the wood railings. In 1921, further improvements were made by the D.C. assistant engineer of bridges. A roadway was built on fill within the wingwalls of 1912, and a new eastern abutment was constructed of concrete, which replaced the plank approach at the east end.[4] At this time, steel tubular railings were added and the deck was resurfaced with aspbalt. The bridge has been repaired and resurfaced many times since.

In 1937, the National Capital Parks built a bridle and pedestrian path under the westernmost span of the bridge. The intersection of the bridge with Beach Drive and Park Road, which had been dangerous due to its blind approach, was protected by traffic lights after 1940.[5]

Design and Description

Pierce Mill Bridge is a two-lane vehicular bridge of plate-girder design consisting of three

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[1] Charles C. McLaughlin and Jane D. Winer, Historic Structure Report: Pierce Mill Bridge, Washington, D.C. (Unpublished report, August 1987), 8. Obtained from Department of Public Works-Highway Division, District of Columbia.

[2] McLaughlin and Winer, 6.

[3] McLaughlin and Winer, 3-4.

[4] McLaughlin and Winer, 5.

[5] McLaughlin and Winer, 12-13.

simple spans that have a total length of 178'. Plate-girder construction was common in the 1890s.[6] The bridge is 29' wide. The steel girders carry a load limited to 6 tons, and are supported by stone piers and concrete abutments faced with granite. The wood deck remains, though covered with asphalt. The structure's steel I-beams and eastern abutment are failing.[7]

The piers were originally built to support the 1872 wood superstructure. The Kensington gneiss used for the piers probably came from the Pierce Shoemaker quarry along the Broad Branch upstream from the bridge site.[8]

This bridge has long presented a transportation problem due to its narrow width, lack of sidewalks, and precocious siting. Its removal has been debated for years. In fact, the Olmsted Brothers' report of 1916 recommended that Pierce Mill Bridge be taken out because of its dangerous blind intersection with Beach Drive.[9] Though the bypass for horses and traffic lights have helped alleviate this problem, the nature of the crossing still presents a hindrance to the flow of pedestrian and vehicular traffic. The bridge was replaced in 1993, and a pedestrian walkway was added.

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[6] McLaughlin and Winer, 8.

[7] District of Columbia-Department of Public Works, Annual Bridge Inspection Report, 3 February 1992. Obtained from DPW.

[8] McLaughlin and Winer, 2.

[9] McLaughlin and Winer, 16.